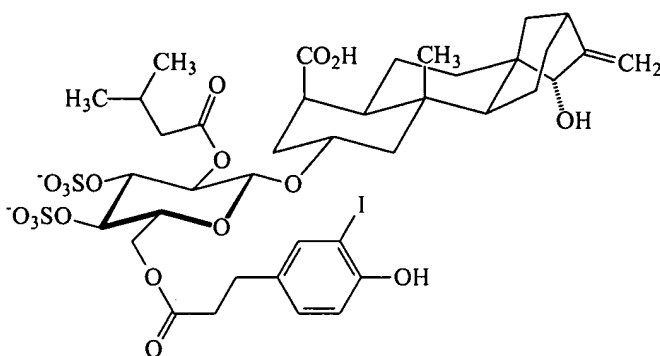


REMARKS

By Office Action mailed April 5, 2004, pending claims 85, 86, 89, 93, 94, 96, 99, 101-103, 107 and 108 stand rejected, claims 98 and 100 are objected to, and claims 87, 88, 90-92, 95, 97 and 109-111 stand withdrawn, reconsideration of which is respectfully requested in view of the above amendments and following remarks. Claims 94, 96 and 102 have been amended. Claims 1-93, 95, 103-107 and 109-112 have been cancelled. Claims 94, 96-102 and 108 are now pending.

Restriction Requirement and Election of Species

In Applicant's prior Response to Restriction Requirement, Applicants elected the Group I claims (*i.e.*, claims 85-103, 107 and 108) for examination in the present application. In addition, Applicants further elected the species of compound 24 for purpose of initial examination only.



Compound 24

However, in the present Office Action, the Examiner states that "the election of the compound [24] was a further restriction requirement, and according to page 4 of the previous action, upon election, the Office will review the claims and disclosure to determine the scope of the independent invention encompassing the elected invention based upon class and subclass." In view of the foregoing, the Examiner independently defined a sub-genus of compounds, set forth on page 2-3 of the present Office Action, and indicated that the remaining subject matter of

the claims stands withdrawn under 37 C.F.R. §1.142(b) as being directed to non-elected subject matter. Applicants respectively traverse the Examiner's actions.

As set forth in M.P.E.P. §803.02, which relates to restriction practice for Markush-type claims, an Applicant may be required to provisionally elect a single species within a generic Markush claim for purposes of initial examination. Such a requirement is proper for Markush-type claims wherein "two or more of the members are so unrelated and diverse that a prior art reference anticipating the claim with respect to one of the members would not render the claim obvious under 35 U.S.C. §103 with respect to the other member(s)." §803.02 further specifies that following such a provisional election,

"the Markush-type claim will be examined fully with respect to the elected species and further to the extent necessary to determine patentability. If the Markush-type claim is not allowable over the prior art, examination will be limited to the Markush-type claim and claims to the elected species, with claims drawn to species patentably distinct from the elected species held withdrawn from further consideration... On the other hand, should no prior art be found that anticipates or renders obvious the elected species, the search of the Markush-type claim will be extended."

Contrary to the Examiner's actions, an Applicant may not be required to divide up the embodiments of a single Markush claim under the guise of a restriction requirement pursuant to 37 C.F.R. §121. As held by the CCPA in *In re Weber*, 580 F.2d 455, 458 (C.C.P.A. 1978), §121 gives the USPTO the authority to restrict between claims of an application reciting one or more independent and distinct inventions, but does not provide the authority to reject a single claim on that same basis, with the idea of requiring an applicant to break up the claim and present it in several applications.

The cases cited by the Examiner, namely, *In re Harnisch*, 631 F.2d 716 (C.C.P.A. 1980) and *Ex Parte Hozumi*, 3 U.S.P.Q.2d 1059 (Bd. Pat. App. & Int. 1984), are directed to the judicially created doctrine of "improper Markush grouping," which provides that an Examiner may refuse to examine a Markush-type claim when the compounds within the Markush group

(1) do not share a common utility and (2) do not share a substantial structural feature disclosed as being essential to that utility (*i.e.*, when the subject matter of the claim lacks “unity of invention”). The Markush-type claims in both *Harnisch* and *Hozumi*, similar to the claims in the present application, defined a broad genus of chemical compounds having a common core chemical structure and possessing a common asserted utility. In both cases, “unity of invention” was found based on that common core structure and common utility. In particular, in holding that “unity of invention” existed, the CCPA in *Harnisch* stated that in view of such common characteristics, “the claimed compounds all belong to a subgenus...which is not repugnant to scientific classification.” *Harnisch* at 722. Applicants submit that pending independent claim 94, which is directed to a genus of ANT ligands having a core atractyloside structure, would satisfy the two-part “unity of invention” test set forth in *Harnisch* and *Hozumi* and constitutes a proper Markush grouping.

Accordingly, in view of the foregoing and Applicants’ prior elections, Applicants request that the Examiner consider the full scope of pending independent claim 94, as amended, as well as pending dependent claims 96-102 and 108.

Claim Objections

Claims 85, 86, 89, 93, 94, 96, 98-103, 107 and 108 are objected to as containing non-elected subject matter. In view of the above amendments and remarks, Applicants request that this ground of rejection be withdrawn. In particular, Applicants have cancelled claims 85, 86, 89, 93 and 107, and, as set forth in more detail above, Applicants submit that claims 94, 96, 98-103 and 108 do not contain non-elected subject matter.

Rejections Under 35 U.S.C. §102(b)

Claims 85, 86, 89, 93, 94, 96, 99, 101-103, 107 and 108 stand rejected under 35 U.S.C. 102(b) as being anticipated by Boulay et al., *Analytical Biochemistry* 128, 323-330 (1983), Block et al., *Methods in Enzymology* 125, 639-349 (1986) and Roux et al., *Analytical Biochemistry* 234, 31-37 (1996). More specifically, as noted by the Examiner on pages 5-6 of

the Office Action, such references disclose 6'-O-naphthoyl atractyloside, which is said to correspond to compounds of claim 94 wherein R_1 is $-OC(=O)R_4$ and R_4 is -X-aryl.

To further prosecution, Applicants have amended claim 94 to exclude the R_4 moiety from being "-X-aryl". In addition, Applicants have amended claim 94 to exclude (1) the R_4 moiety from being "-X-substituted aryl" and (2) the R_1 moiety from being hydroxyl. Such amendments merely remove several members of a Markush-group from the scope of the pending claims and do not constitute the addition of new matter. Furthermore, these amendments are not, and should not be construed as, an acquiescence to this rejection. Rather, Applicants merely wish to expedite the allowance of a more specific embodiment, and reserve the right to continue prosecution of the cancelled subject matter is one or more related applications.

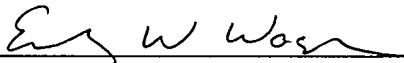
Accordingly, in view of the foregoing, Applicants submit that none of the foregoing references, namely, Boulay, Block or Roux, anticipate pending independent claim 94. Furthermore, Applicants submit that there is no teaching or suggestion in any of such references to modify the compounds disclosed therein in order to yield the claimed ANT ligands of the present invention. Accordingly, Applicants request that this ground of rejection be withdrawn.

In view of the above amendments and remarks, allowance of claims 94, 96-102 and 108 is respectfully requested. A good faith effort has been made to place this application in condition for allowance. However, should any further issue require attention prior to allowance, the Examiner is requested to contact the undersigned at (206) 622-4900 to resolve the same. Furthermore, the Commissioner is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Respectfully submitted,

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Enclosure:
Petition for Extension of Time

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